displays as touch screens is possible. It is also possible to arrange actuators in one of more parts on both sides of the part.

[0017] It is also possible to use the surfaces of different parts of the device for other purposes than those directly related to the control of the device. These kinds of applications include, for example, different decorations, games and other solutions connected to personalizing.

[0018] The structure according to the invention does not depend on how the use of the function of the device and the position of the structure of the device are connected to each other. In an embodiment the functions of the device can be used with a simple user interface when the device is in a closed position and a more versatile user interface can be used by opening the device. In a phone according to an embodiment of the invention, speaking on the phone is possible when one part of the phone has been opened.

[0019] The user interface of a device according to an embodiment of the invention is activated by opening the device from the closed position to the open position. Thus, for example, by opening and/or closing the device the displays and/or keypads are set on or off and/or visible or hidden. The effect achieved by opening and/or closing the device depends naturally on the device and its usage applications, which may be connected to, for example, a phone call, writing, reading, playing, i.e., whatever the user can do with his/her device.

[0020] The solution according to the invention can be used in different devices, such as, for example, portable and hand-held devices. For example, the device can be a mobile phone, a PDA, a communication device and/or a game device. Generally, the invention is well suited for objects, where the device is desired to be small in size, such as when carrying it, and sometimes, in turn, to have relatively large area, for example in order to direct functions and/or display information. In some embodiments the foldable structure also forms a protective structure for the means of the device when the device is not opened into the usage position. Thus, for example, the keypad, display and/or the camera objective can be protected during transportation.

DESCRIPTION OF THE DRAWINGS

[0021] In the following, the invention will be described in more detail with reference to the appended principle drawings, in which

[0022] **FIG. 1** shows an embodiment of the device according to the invention in an open position,

[0023] **FIG. 2** shows a device according to the invention in a closed position,

[0024] **FIG. 3** shows the device according to **FIG. 2** in a side view from the direction of the X,

[0025] FIGS. **4** to **9** show some phases connected to opening the device according to the invention,

[0026] **FIG. 10** shows another embodiment of the invention in the open position,

[0027] **FIG. 11** shows the device according to **FIG. 10** in the closed position,

[0028] **FIG. 12** shows a third embodiment of the invention in the open position,

[0029] **FIG. 13** shows the device according to **FIG. 12** in the closed position,

[0030] FIGS. **14** to **17** show a fourth embodiment of the invention in different positions,

[0031] **FIG. 18** shows the control principle of the device according to an embodiment as a flow chart, and

[0032] FIGS. **19** to **24** show some phases connected to opening the device according to the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0033] For the sake of clarity, the figures only show the details necessary for understanding the invention. The structures and details which are not necessary for understanding the invention and which are evident for anyone skilled in the art have been omitted from the figures in order to emphasize the characteristics of the invention.

[0034] In the description, the concept of an "open device" mainly refers to the fact that the mechanical structure of the device is opened in such a manner that at least two frame parts are positioned next to each other. Correspondingly, the concept of a "closed device" mainly refers to the fact that the frame parts of the device are positioned substantially on top of each other or within each other. The functions of the device may case-specifically be on or off irrespective of whether the device is open or closed.

[0035] **FIG. 1** shows a device structure according to the invention when the device is open. The device comprises three frame parts **1** arranged in movable relation to each other, of which parts the second part **1***b* and the third part **1***c* are connected to the first part **1***a* by means of hinges **2** or corresponding structures enabling the opening movement. In the embodiment shown in the figure, the second part **1***b* and the third part **1***c* are connected to the first part **1***a* by means of hinge structures **2** in such a manner that the angle between the axis lines of the hinge structures is 120 degrees. Thus, the angle between the opening directions of the second part **1***b* and the third part **1***c* is in turn 60 degrees. All three frame parts **1** are connected to each other when the device is open.

[0036] In the example according to **FIG. 1**, one frame part **1** comprises the display **3** of the device as well as some buttons **4**, and in the other two parts is placed the keypad **5**, in this case a qwerty-keypad. The keypad **5** can also be of some other type and/or the placement of the keys may differ from what is presented. It is also possible to place actuators or transducers in one, two or three frame parts **1**. In an embodiment touch screens **3** are arranged in two frame parts **1** and in another embodiment touch screens **3** are arranged in three parts **1**. In addition to displays **3**, the actuators or transducers placed in the frame parts **1** of the device may include, among other things, keypads **5**, buttons **4**, loudspeakers and microphones.

[0037] The structures connected to the operation of the device, such as, for example, power sources, controllers, transmitters, receivers, memories, connectors, can be placed application-specifically into one or more frame parts **1**.

[0038] **FIG. 2** presents a device structure according to **FIG. 1**, in turn, in a closed position seen from the corre-